

# Comparisons of Job Characteristics

**Focus Occupation:** [Electricians \(47-2111\)](#)

**Associated Occupation:** [Heating, Air Conditioning, and Refrigeration Mechanics and Installers \(49-9021\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 86

**Focus Occupation:** Electricians (47-2111)

**Associated Occupation:** Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Mechanical	6.8	20.1	16.5	<< Extensive education and/or training may be required
Building and Construction	4.0	12.5	14.6	> Current knowledge level is likely sufficient
Physics	4.3	11.4	10.9	0 Current knowledge level may be sufficient
Engineering and Technology	5.7	11.1	11.8	0 Current knowledge level may be sufficient
Design	5.2	10.3	13.4	>> Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 87

**Focus Occupation:** Electricians (47-2111)

**Associated Occupation:** Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Repairing	3.4	13.5	11.6	< A higher skill level may be required
Troubleshooting	4.5	13.3	12.3	0 Current skill level may be sufficient
Installation	1.7	12.6	9.4	<< Extensive development of skills in this area may be required
Equipment Maintenance	3.5	12.3	10.3	< A higher skill level may be required
Operation Monitoring	6.6	11.4	10.5	0 Current skill level may be sufficient
Quality Control Analysis	5.9	11.2	11.0	0 Current skill level may be sufficient
Operation and Control	5.4	10.9	8.8	< A higher skill level may be required
Equipment Selection	3.3	9.4	8.4	< A higher skill level may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 92			
Focus Occupation: Electricians (47-2111) Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Visualization	7.5	12.4	12.2	0	Current ability level may be sufficient
Extent Flexibility	4.8	11.8	10.4	<	Some improvement in abilities may be required
Visual Color Discrimination	6.4	10.3	12.8	>	Current ability level is likely sufficient
Hearing Sensitivity	5.6	10.0	7.9	<	Some improvement in abilities may be required
Static Strength	5.0	10.0	9.3	0	Current ability level may be sufficient
Gross Body Coordination	3.9	7.4	7.3	0	Current ability level may be sufficient
Gross Body Equilibrium	3.2	7.1	8.2	>	Current ability level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 89
Focus Occupation: Electricians (47-2111)		
Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)		
Work Activities	Exclusivity of Activity	
Adhere to safety procedures	12	
Analyze operation of malfunctioning electrical or electronic equipment	68	
Bend tubing or conduit	81	
Direct and coordinate activities of workers or staff	3	
Fabricate, assemble, or disassemble manufactured products by hand	11	
Install electrical conduit or tubing	81	
Install electrical fixtures or components	71	
Install or replace meters, regulators, or related measuring or control devices	66	
Install/connect electrical equipment to power circuit	57	
Install/string electrical or electronic cable or wiring	76	
Lay out electrical wiring for buildings, etc.	95	
Move or fit heavy objects	8	
Order or purchase supplies, materials, or equipment	35	
Perform safety inspections in industrial, manufacturing or repair setting	32	
Plan layout of electrical/electronic equipment installation	89	
Read blueprints	10	

Read technical drawings	7
Repair or adjust measuring or control devices	71
Repair or replace electrical wiring, circuits, fixtures, or equipment	49
Replace electronic components	63
Solder electrical or electronic connections or components	55
Test electrical/electronic wiring, equipment, systems or fixtures	54
Test electronic or electrical circuit connections	66
Understand service or repair manuals	40
Use electrical or electronic test devices or equipment	40
Use hand or power tools	2
Use high voltage apparatus	76
Use soldering equipment	44
Use voltmeter, ammeter, or ohmmeter	52

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 88

**Focus Occupation: Electricians (47-2111)**

**Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)**

Tools and Technologies	Exclusivity
Aerial lifts	13
Bandsaws and accessories	26
Business function specific software	1
Compressors	9
Computer printers	2
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Cutting tools	18
Data management and query software	1
Earth moving machinery	11
Electrical measuring and testing equipment	7
Face and head protection	7
Forming tools	2
Holding and clamping tools	3
Indicating and recording instruments	2
Industry specific software	1
Labeling machines	33
Ladders and scaffolding	6
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Light and wave generating and measuring equipment	4
Machine tools	7

Marking tools	11
Measuring and layout tools	3
Mechanical instruments	14
Personal communication devices	2
Power tools	2
Pressure measuring and control instruments	10
Prying and bending tools	10
Pulling tools	31
Respiratory protection	6
Safety apparel	4
Soldering and brazing and welding machinery and supplies	6
Surveillance and detection equipment	11
Temperature and heat measuring instruments	6
Tool attachments and accessories	12
Viewing and observing instruments and accessories	4
Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.